

23 January 2006

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Ms. Mary Rose Cassa  
California Regional Water Quality Control Board  
San Francisco Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612



Subject: Indoor Air Sampling Report  
Hookston Station Site  
Pleasant Hill, California

Dear Ms. Cassa:

On behalf of Mr. Daniel Helix and Union Pacific Railroad Company (UPRR), Environmental Resources Management-West, Inc. (ERM) has prepared this *Indoor Air Sampling Report* to describe the results of the Summer 2005 indoor air sampling program. This work was completed in accordance with the 15 October 2004 *Indoor Air Sampling Workplan* (workplan) for the Hookston Station site, which was approved by the RWQCB on 28 October 2004, and sampling program modifications that were described in our letter entitled "Indoor Air Sampling Status," dated 11 August 2005. Due to the seasonal rains that began in late October 2004, the indoor air sampling program was postponed until the summer of 2005. Dr. Alan Nye of the Center for Toxicology and Environmental Health (CTEH) submitted laboratory data reports from this study to the RWQCB in a letter dated 2 November 2005. Together, Dr. Nye's data transmittal and this summary report have been completed to satisfy the requirements set forth in Task 8c of the RWQCB Order No. R2-2004-0081, dated 15 September 2004.

The following sections describe the indoor air sampling objectives and results of this study.

#### ***INDOOR AIR SAMPLING OBJECTIVES AND SCOPE***

Indoor air sampling data was collected within the residential neighborhood that is downgradient (northeast) of the Hookston Station site and other sites with known chemical releases. As described in the workplan, the boundaries of the current indoor air quality study area are shown on Figure 1. The downgradient study area, which is roughly

bound by Hampton Drive to the west, Waterloo Court to the north, Bermuda Drive to the east, and Hookston Road to the south, contains 37 single-family homes over an area of approximately 8 acres. Indoor air sampling was previously completed within this study area between December 2003 and April 2004. During that previous sampling period, 16 residents granted permission to perform indoor air testing, and 7 of those homes were found to have trichloroethene (TCE) concentrations in indoor air that exceed the RWQCB's Environmental Screening Level (ESL) of 1.2 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). In addition, four of these homes were found to have PCE concentrations that exceeded the ESL of 0.41  $\mu\text{g}/\text{m}^3$ .

As described in the workplan, the objectives for completing additional indoor air sampling were:

- To collect indoor air samples from homes within the study area that did not participate in the previous (Winter/Spring 2004) sampling event; and
- For homes where samples were previously collected, to obtain additional dry season indoor air quality data.

On 20 June 2005, a community meeting was held at Fair Oaks Elementary School to present the results of the *Baseline Risk Assessment* (CTEH, 2005). During that meeting, the Water Board solicited the audience for additional parties that were interested in participating in the upcoming indoor air study. Approximately 20 residents that live outside of the approved indoor air study area requested sampling in response to the discussions during that community meeting. UPRR and Mr. Helix voluntarily expanded the sampling program to include most of these individual requests. As shown on Figure 1, the current indoor air program included samples from 19 homes within the initial study area and 20 homes from the surrounding neighborhood, for a total of 39 homes. At this time, three additional homes within this neighborhood have requested indoor air sampling; the results of those tests will be provided to the Water Board when they are completed.

It should be noted that our sampling program could only be completed with permission from the residents. Several residents that allowed testing in the Winter of 2004 would not allow testing during the Summer of 2005.

## **INDOOR AIR SAMPLING RESULTS**

The analytical results of the Summer 2005 indoor air sampling program are summarized in Table 1. Electronic copies of the indoor air laboratory data reports and associated quality control reviews are provided in Appendix A. Copies of completed indoor air survey questionnaires and field notes are included in Appendix B. Table 1 also includes a summary of previous (Winter 2004) indoor air sampling results. In general, no significant seasonal differences were noted between co-located samples. The distribution of TCE and PCE detections in indoor air samples are shown on Figures 1 and 2, respectively.

Other air quality samples were collected concurrent with the indoor air sampling. Outdoor air samples were collected during each day of indoor air sampling and, if present, a crawl space sample was collected from each home. Crawl space and outdoor air sample results are also summarized in Table 1. A summary of results by chemical is presented below.

### **TCE**

As shown in Table 1, only five of the 39 homes sampled during the Summer 2005 sampling program contained TCE concentrations in indoor air that exceed the California Human Health Screening Level (CHHSL)<sup>1</sup> of 1.22 microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ). CHHSLs were developed by the Office of Environmental Health Hazard Assessment (OEHHA), and represent a theoretical excess lifetime cancer risk of one-in-a-million, using standard exposure assumptions and published toxicity values. Two additional homes contained concentrations of TCE that were above the CHHSL within crawl space air, but were below the CHHSL in indoor air. The presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts to human health are occurring or will occur but suggests that further evaluation of potential human health concerns is warranted (OEHHA, 2005).

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<sup>1</sup> It should be noted that ESLs were used as a point of comparison for indoor air data during the 2004 indoor air sampling work, whereas CHHSLs (which were published in January 2005), have been used as a point of comparison for indoor air data collected during the Summer 2005 sampling program. For TCE, the CHHSL (1.22  $\mu\text{g}/\text{m}^3$ ) is consistent with the ESL (1.2  $\mu\text{g}/\text{m}^3$ ).

As shown on Figure 1, each of the dwellings that contained TCE concentrations exceeding the CHHSL is located within the original boundaries of the indoor air study area. Homes with TCE concentrations that exceed the CHHSL are generally located along the axis of the commingled VOC plume in A-Zone ground water.

It should be noted that 20 of the homes that were sampled were 2-story dwellings, in which samples were collected from both upstairs and downstairs locations. Fifteen of those 2-story homes contained non-detectable TCE results. Of the remaining five homes that reported detectable TCE concentrations, TCE results in the upstairs samples were generally consistent with the downstairs samples, with the exception of 1221 Thames Drive. The upstairs sample collected at 1221 Thames Drive ( $7.1 \mu\text{g}/\text{m}^3$ ) was approximately twice the concentration of TCE that was detected in the downstairs living room ( $3.3 \mu\text{g}/\text{m}^3$ ) on the same date, and was nearly 4 times greater than the crawl space sample result ( $1.8 \mu\text{g}/\text{m}^3$ ).

### **PCE**

Fourteen homes within the sampling program contained concentrations of tetrachloroethene (PCE) above the CHHSL of  $0.412 \mu\text{g}/\text{m}^3$  (Figure 2). PCE is not a chemical of concern associated with the Hookston Station site, but it is a chemical of concern associated with properties along Vincent Road, upgradient of the Hookston site. PCE was added to the target compound list after it was discovered in soil vapor samples collected in the vicinity of the indoor air sampling program. As reported in the recent Third Quarter 2005 Monitoring Report and October 2005 Monthly Status Report (ERM, 31 October, 2005), the highest concentrations of PCE found in soil vapor were detected in vapor probe SVP-2, located near 1007 Stimel Drive.

### ***Aromatic Hydrocarbons***

Aromatic hydrocarbons (e.g., benzene, toluene, ethylbenzene, and xylenes) were detected in nearly all of the homes sampled. Benzene concentrations exceeded the CHHSL in all indoor air samples (Figure 3). Benzene, toluene, ethylbenzene, and xylenes were also found in outdoor ambient air at similar concentrations to those detected indoors. Benzene, toluene, ethylbenzene, and xylenes are not chemicals of concern associated with the Hookston Station site.

### ***1,2-Dichloroethane***

1,2-Dichloroethane (1,2-DCA) was found in several indoor air samples (eight homes exceeded the CHHSL, see Figure 4), but is not present in ground water in this area. According to the Agency for Toxic Substances and Disease Registry (ATSDR), the most common use of 1,2-DCA is in the production of vinyl chloride which is used to make a variety of plastic and vinyl products including polyvinyl chloride (PVC) pipes, furniture and automobile upholstery, wall coverings, housewares, and automobile parts. 1,2-DCA is not a chemical of concern associated with the Hookston Station site.

### ***Vinyl Chloride***

Vinyl chloride (VC) was detected in only one home during this study (an upstairs indoor air sample at 1002 Hampton Drive). VC was not detected in the downstairs or crawl space samples in this home (see Table 1). This home has an operating vapor intrusion mitigation system. Vinyl chloride is not present in the ground water monitoring well immediately adjacent to this home (MW-15A). The absence of this chemical in ground water, crawl space air, and downstairs indoor air suggests that the upstairs vinyl chloride detection is unrelated to the ground water plume.

### ***1,1,1-Trichloroethane***

1,1,1-Trichloroethane (1,1,1-TCA) was also detected in many indoor air samples at low concentrations relative to the CHHSL, but this compound was not detected in outdoor air, nor is it generally found in ground water in this area. According to ATSDR, 1,1,1-TCA is found in building materials, cleaning products, paints, and metal degreasing agents. Production of 1,1,1-TCA was banned in the United States in January 2002 because it affects the ozone layer. 1,1,1-TCA had many industrial and household uses, including use as a solvent to dissolve other substances, such as glues and paints; to remove oil or grease from manufactured metal parts; and as an ingredient of household products such as spot cleaners, glues, and aerosol sprays. 1,1,1-TCA is not a chemical of concern associated with the Hookston Station site.

## **CRAWL SPACE VAPOR REMOVAL SYSTEMS**

Crawl space vapor removal systems were installed at 1002 Hampton Drive, 1220 Thames Drive, and 1009 Stimel Drive following the Winter 2004 indoor air sampling program. Previous sampling at these homes (Winter 2004) showed TCE concentrations that were above the CHHSL, ranging from  $1.4 \mu\text{g}/\text{m}^3$  to  $6.7 \mu\text{g}/\text{m}^3$ . During the same sampling event, PCE was not detected at 1002 Hampton Drive or 1220 Thames Drive, but exceeded the CHHSL at 1009 Stimel Drive. These vapor removal systems were offered to all residents in the neighborhood with TCE concentrations above  $1.2 \mu\text{g}/\text{m}^3$  (the residential ESL) to address their indoor air quality concerns.

Samples collected from each of these homes during the Summer 2005 sampling program contained TCE concentrations that were below the CHHSL, indicating that these systems appear to be effective at reducing TCE vapor concentrations in indoor air. An additional crawl space vapor removal system was installed at 1007 Stimel Drive in October 2005, just after the Summer 2005 sampling event at that home. Each of these systems was installed under private agreements between UPRR, Mr. Helix, and the individual residents.

In November 2005, UPRR and Mr. Helix extended offers to install crawl space vapor removal systems in five additional homes: 1000 Hampton Drive, 1006 Hampton Drive, 1005 Stimel Drive, 1006 Stimel Drive, and 1221 Thames Drive. To date, none of the residents have accepted this offer.

## **CONCLUSIONS**

The Summer 2005 indoor air sampling program covered a significantly broader area and included many more samples than the Winter 2004 sampling program. Based on the data collected during these two sampling events, the following conclusions are made:

- No significant seasonal variations were identified within samples collected in the same rooms during the Winter 2004 and the Summer 2005 sampling events.
- The lateral extent of TCE detections in indoor air is confined to a small area over the commingled plume axis. Based on studies completed to date, all of the homes that contain TCE concentrations in indoor air above the CHHSL are within or immediately adjacent to

the block bounded by Hampton Drive, Thames Drive, Stimel Drive, and Hookston Road.

- In addition to TCE (the primary chemical of concern within the Hookston Station plume), 12 other VOCs were detected in indoor air samples, four of which (PCE, benzene, 1,2-DCA, and vinyl chloride) exceed their respective CHHSL in one or more locations within the study.
- The most recent indoor air data demonstrates that the crawl space vapor removal systems that were installed in several homes within this neighborhood are effective at reducing TCE vapor concentrations in indoor air.

If you have any questions regarding this status report, please call me at (925) 946-0455.

Sincerely,



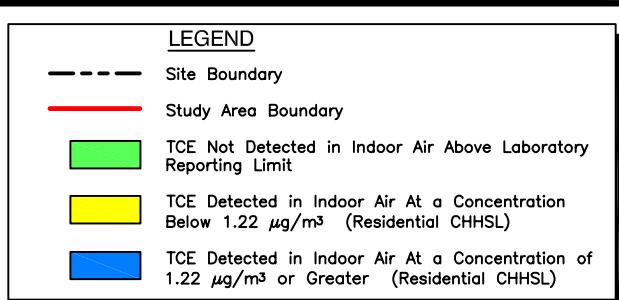
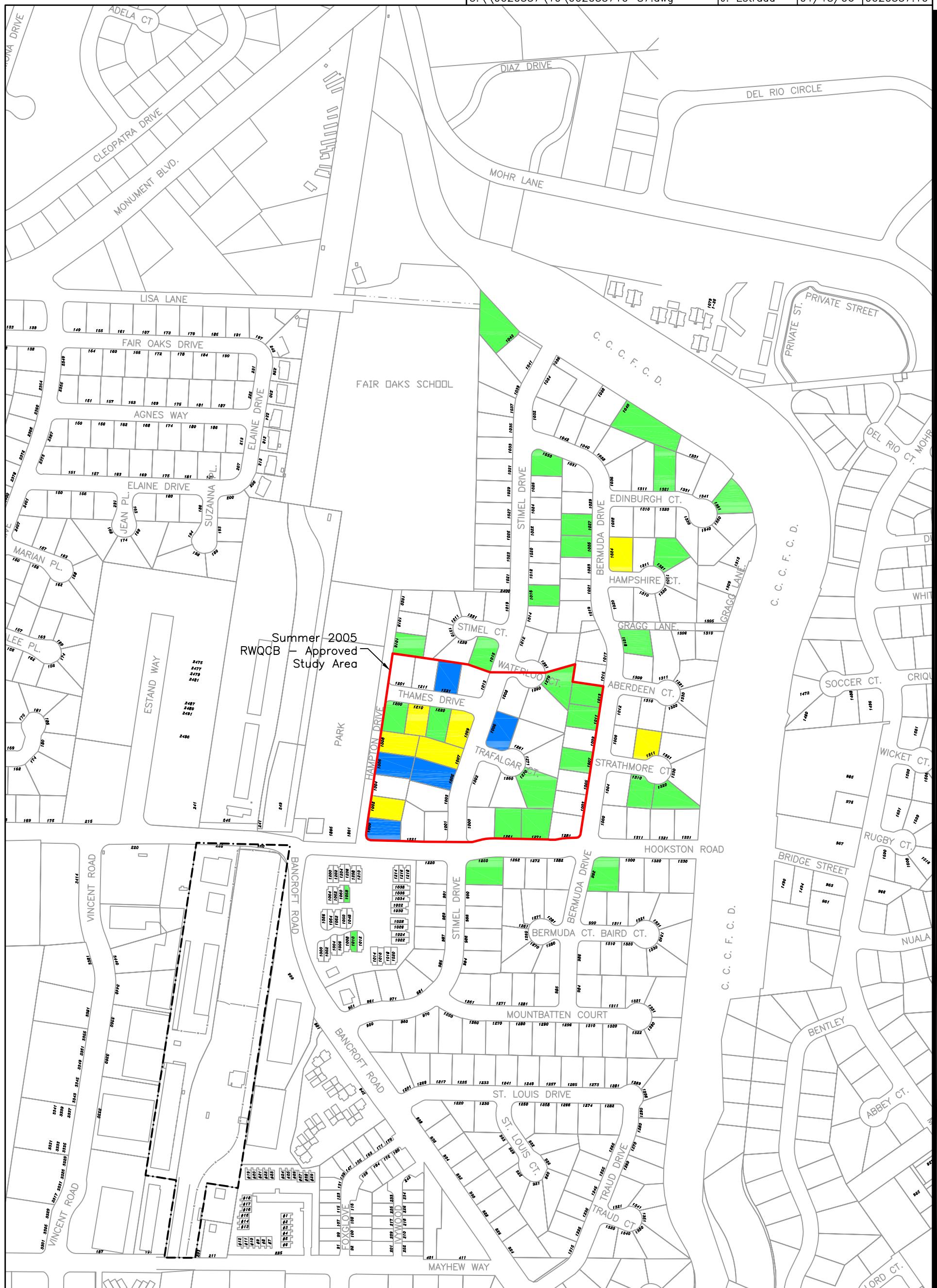
Brian Bjorklund, P.G.  
*Project Manager*



Kimberly L. Lake, P.G.  
*Project Geologist*

BSB/kll/0020557.10  
cc: Mr. Daniel Helix  
Mr. Michael Grant, UPRR

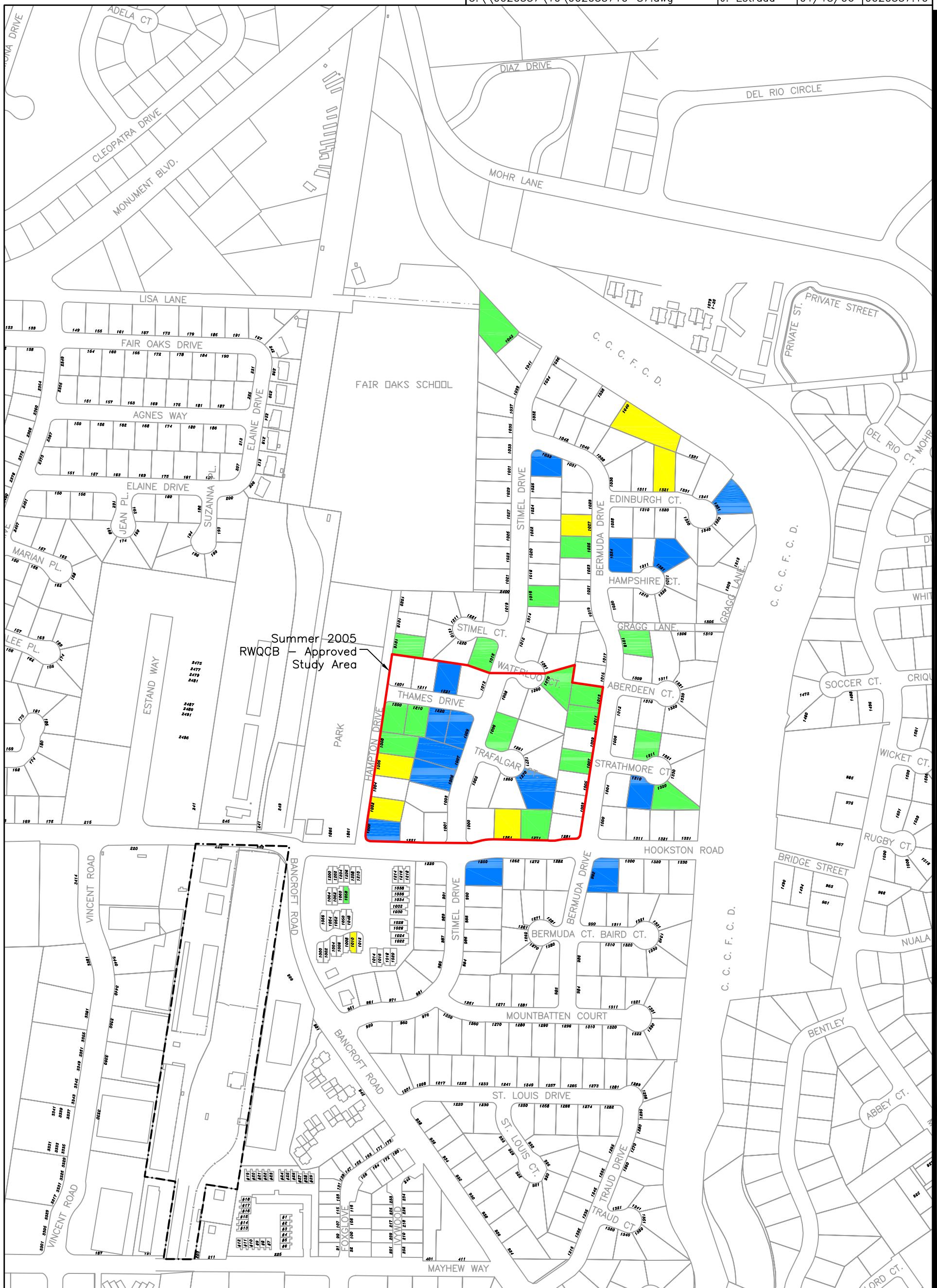
## *Figures*



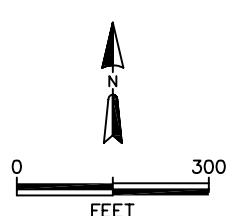
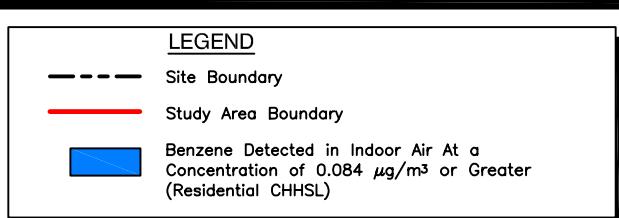
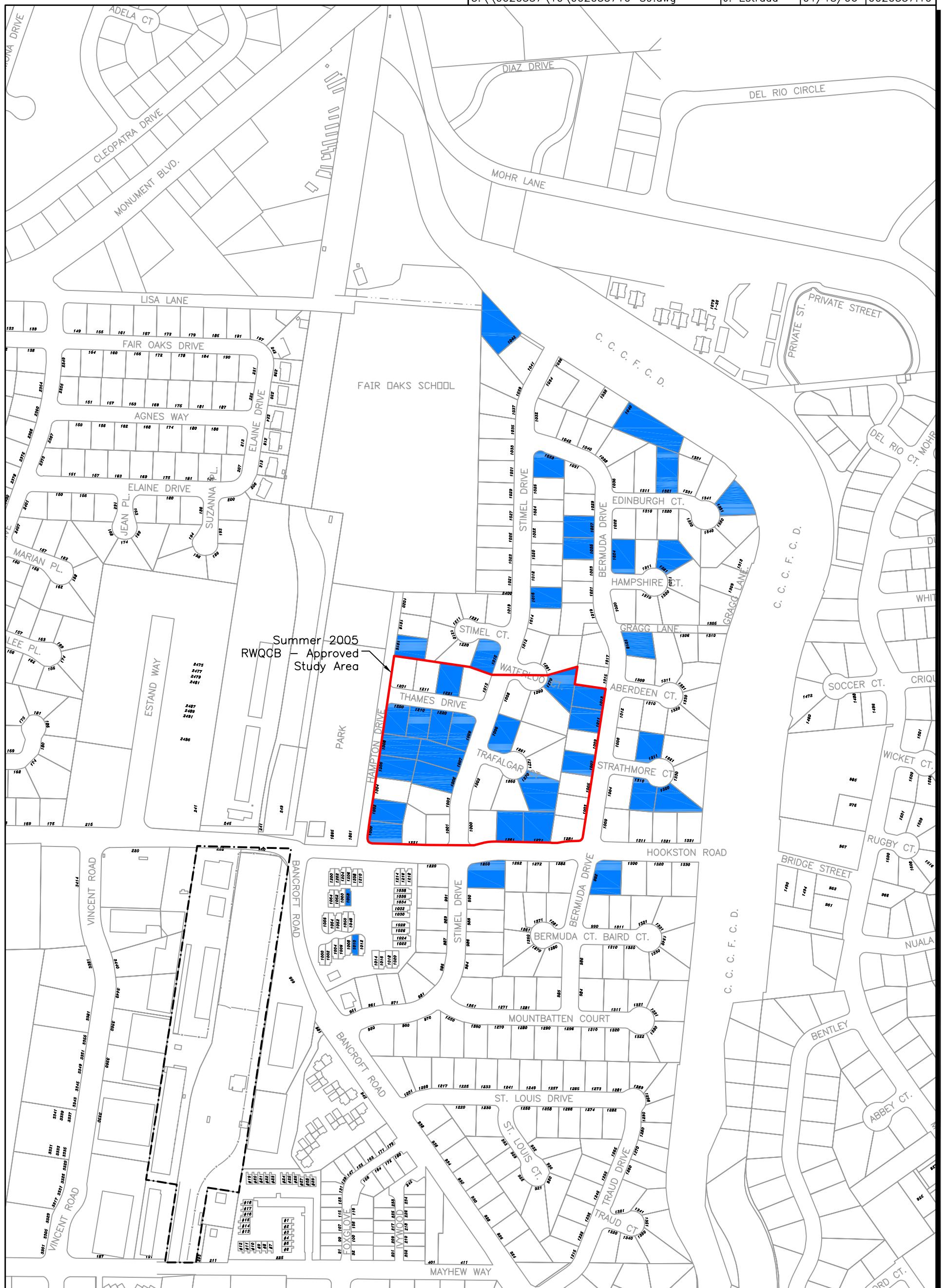
A north arrow pointing upwards, with the letter 'N' written vertically next to it. Below the arrow is a horizontal scale bar with tick marks at each end. The word 'FEET' is written below the scale bar, and the number '300' is written above the right end of the scale bar.

# Figure 1

## *2005 Indoor Air Results - TCE Hookston Station Project Pleasant Hill, California*

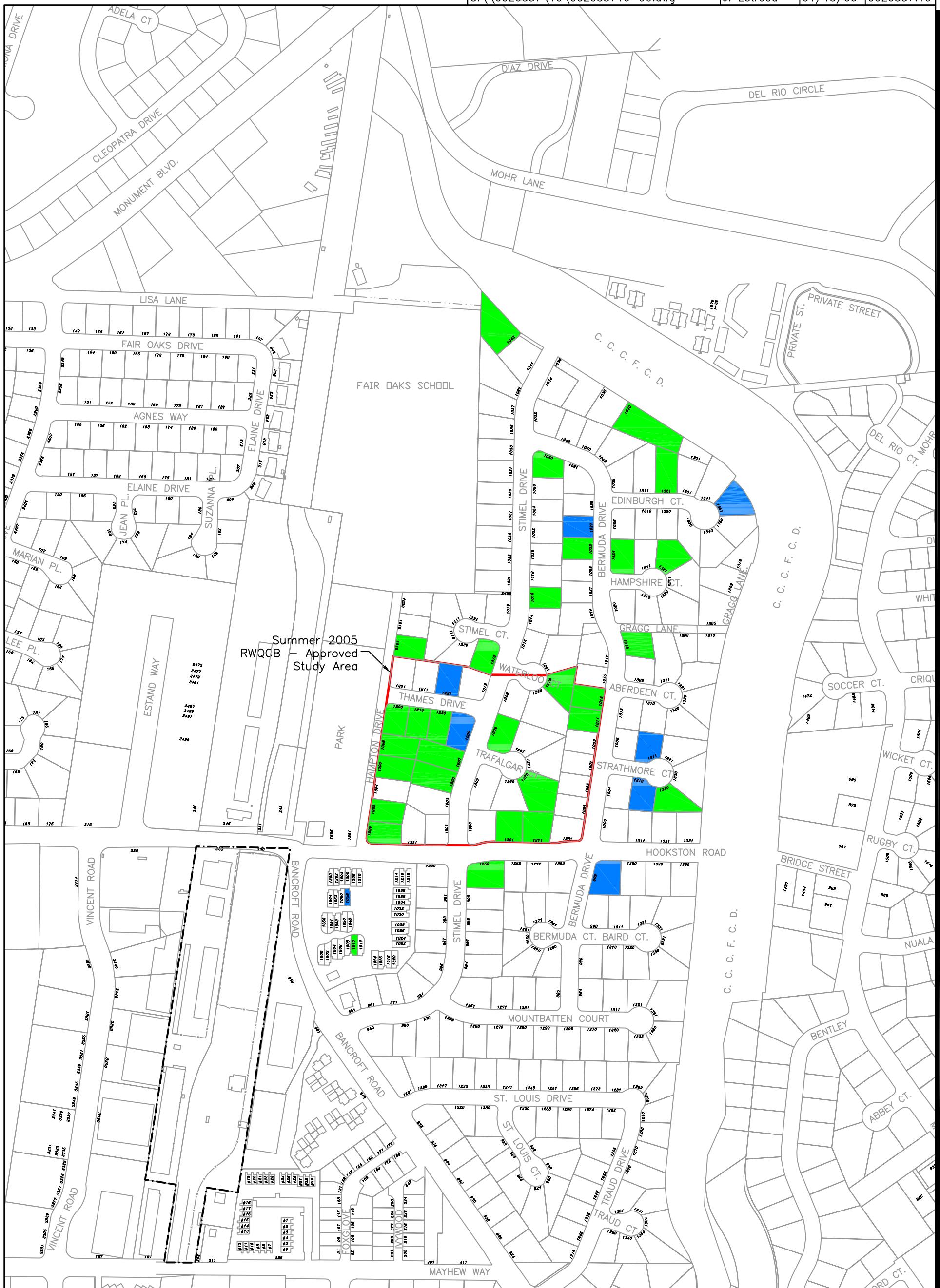


**Figure 2**  
**2005 Indoor Air Results - PCE**  
**Hookston Station Project**  
**Pleasant Hill, California**



# Figure 3

## *2005 Indoor Air Results - Benzene Hookston Station Project Pleasant Hill, California*



**Figure 4**  
**2005 Indoor Air Results - 1,2-DCA**  
**Hookston Station Project**  
**Pleasant Hill, California**

*Tables*

**Table 1**  
**Volatile Organic Compounds Detected in Air Samples ( $\mu\text{g}/\text{m}^3$ )**  
**Hookston Station**  
**Pleasant Hill, California**

Sample ID	Address	Date	Sample Location	Final Vacuum (In. Hg)	Vinyl Chloride	1,1-DCE	c-1,2-DCE	1,1,1-TCA	Benzene	1,2-DCA	TCE	Toluene	PCE	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
			Residential Indoor Air ESL:	0.032	42	7.3	460	0.085	0.12	1.2	63	0.41	420	150	150	9.4	
			Residential Indoor Air CHSSL:	0.0311	-	36.5	2,290	0.084	0.116	1.22	313	0.412	-	730	730	9.35	
<i>Indoor Air and Crawl Space Results:</i>																	
1000 Hampton	1000 Hampton Dr	1/21/2004	Living Room	6.0	NA	<0.068	<0.14	NA	NA	1.2	NA	NA	NA	NA	NA	NA	
1000 Hampton (crawl)	1000 Hampton Dr	1/21/2004	Crawl Space - hall closet	5.5	NA	<0.066	<0.13	NA	NA	1.6	NA	<0.23	NA	NA	NA	NA	
1000 Hampton Dr - 1st Floor	1000 Hampton Dr	8/29/2005	Master Bedroom	0.0	<0.034 UJ	<0.053 UJ	<0.11 UJ	0.25 J	0.70 J	<0.11 UJ	<0.14 UJ	2.1 J	0.34 J	0.54 J	1.1 J	0.26 J	<0.48 UJ
1000 Hampton Dr - Crawl Space	1000 Hampton Dr	8/29/2005	Crawl Space - hall closet	8.0	<0.047	<0.072	<0.14	<0.20	0.62	<0.15	3.0	3.4	<0.25	0.67	1.9	0.47	<0.66
1000 Hampton Dr - 1st Floor	1000 Hampton Dr	10/5/2005	Master Bedroom	4.0	<0.040	<0.061	<0.12	1.2	0.90	<0.12	1.4	5.2	0.45	1.1	3.8	0.91	<0.56
1000 Hampton Dr - 1st Floor Duplicate	1000 Hampton Dr	10/5/2005	Master Bedroom	4.0	<0.040	<0.061	<0.12	1.3	0.92	<0.12	1.4	5.4	0.46	1.1	3.8	0.95	<0.56
1002 Hampton	1002 Hampton Dr	2/19/2004	Master Bedroom	6.5	NA	0.11	<0.14	NA	NA	5.0	NA	NA	NA	NA	NA	NA	NA
1002 Hampton (crawl)	1002 Hampton Dr	2/19/2004	Crawl Space - master bedroom closet	2.5	NA	0.1	<0.12	NA	NA	2.0	NA	<0.20	NA	NA	NA	NA	NA
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr	8/30/2005	Bedroom "A"	7.0	0.11	<0.069	<0.14	<0.19	0.65	<0.14	0.25	4.2	0.36	0.46	1.1	0.36	<0.63 UJ
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	8/30/2005	Living Room	7.0	<0.045	<0.069	<0.14	<0.19	0.63	<0.14	<0.19	4.0	0.36	0.38	1.0	0.29	<0.63 UJ
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	8/30/2005	Crawl Space - master bedroom closet	6.0	<0.043	<0.067	<0.13	0.48	0.46	<0.14	0.28	2.3	0.40	0.24	0.62	0.19	<0.60 UJ
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr	10/5/2005	Bedroom "A"	8.5	0.072	<0.074	<0.15	<0.20	1.0	<0.15	0.24	4.2	0.36	0.77	2.4	0.84	<0.67
1002 Hampton Dr - 2nd Floor Duplicate	1002 Hampton Dr	10/5/2005	Bedroom "A"	8.5	0.068	<0.074	<0.15	<0.20	1.0	<0.15	0.25	4.2	0.37	0.76	2.3	0.80	<0.67
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	10/5/2005	Living Room	7.5	<0.046	<0.071	<0.14	<0.20	0.95	<0.14	0.21	4.4	0.38	0.70	2.4	0.78	<0.64
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	10/5/2005	Crawl Space - master bedroom closet	7.0	<0.045	<0.069	<0.14	<0.19	0.64	<0.14	<0.19	1.7	<0.24	0.36	1.2	0.47	<0.63
1006 Hampton	1006 Hampton Dr	2/19/2004	Master Bedroom	6.5	NA	0.13	<0.14	NA	NA	4.3	NA	NA	NA	NA	NA	NA	NA
1006 Hampton (crawl)	1006 Hampton Dr	2/19/2004	Crawl Space - master bedroom closet	6.0	NA	0.11	0.2	NA	NA	2.2	NA	0.55	NA	NA	NA	NA	NA
1006 Hampton Dr - 2nd Floor	1006 Hampton Dr	8/23/2005	Bedroom (nursery)	8.0	<0.047	<0.072	<0.14	<0.20	0.99	<0.15	2.6	4.3	<0.25	0.69	1.6	0.55	<0.66
1006 Hampton Dr - 1st Floor	1006 Hampton Dr	8/23/2005	Living Room	7.0	<0.045	<0.069	<0.14	<0.19	0.96	<0.14	2.4	4.5	0.24	0.75	1.9	0.62	<0.63
1006 Hampton Dr - Crawl Space	1006 Hampton Dr	8/23/2005	Crawl Space - master bedroom closet	8.5	<0.048	<0.074	<0.15	<0.20	0.87	<0.15	2.3	3.1	<0.25	0.51	1.4	0.42	<0.67
1008 Hampton	1008 Hampton Dr	2/25/2004	Master Bedroom	2.5	NA	<0.059	<0.12	NA	NA	0.43	NA	NA	NA	NA	NA	NA	NA
1008 Hampton (crawl)	1008 Hampton Dr	2/25/2004	Crawl Space - hall closet	n/a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	9/7/2005	Master Bedroom	3.0	<0.038	<0.059	<0.12	<0.16	0.86	<0.12	0.57	7.2	<0.20	0.52	1.4	0.53	<0.54 UJ
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	9/7/2005	Crawl Space - hall closet	7.0	<0.045	<0.069	<0.14	<0.19	0.59	<0.14	1.1	2.2	<0.24	0.28	0.72	0.22	<0.63 UJ
1016 Hampton Dr - 2nd Floor	1016 Hampton Dr	8/25/2005	Bedroom/Family Room	8.0	<0.047	<0.072	<0.14	0.23	0.93	<0.15	<0.20	3.5	<0.25	0.64	1.9	0.55	<0.66 UJ
1016 Hampton Dr - 1st Floor	1016 Hampton Dr	8/25/2005	Living Room	7.5	<0.046	<0.071	<0.14	0.30	1.1	<0.14	<0.19	4.7	<0.24	0.78	2.6	0.86	<0.64 UJ
1016 Hampton Dr - Crawl Space	1016 Hampton Dr	8/25/2005	Crawl Space - bedroom closet	7.0	<0.045	<0.069	<0.14	<0.19	0.69	<0.14	<0.19	2.2	<0.24	0.31	0.88	0.28	<0.63 UJ
1204 Hookston	1204 Hookston Rd	2/19/2004	Living Room	6.0	NA	<0.068	<0.14	NA	NA	<0.18	NA	NA	NA	NA	NA	NA	NA
1208 Hookston	1208 Hookston Rd	1/20/2004	Living Room	4.5	NA	0.064	<0.13	NA	NA	0.19	NA	0.31	NA	NA	NA	NA	NA
1208 Hookston DUP	1208 Hookston Rd	1/20/2004	Living Room	4.5	NA	0.062 J	<0.13	NA	NA	0.18	NA	0.30	NA	NA	NA	NA	NA
1221 Hookston Road	1221 Hookston Rd	9/10/2004	Master Bedroom	7.0	NA	<0.070	<0.14	NA	NA	0.54	NA	NA	NA	NA	NA	NA	NA
1221 Hookston Road (duplicate)	1221 Hookston Rd	9/10/2004	Master Bedroom	7.0	NA	<0.070	<0.14	NA	NA	0.52	NA	NA	NA	NA	NA	NA	NA
1221 Hookston Road (crawl)	1221 Hookston Rd	9/10/2004	Crawl Space	5.0	NA	<0.065	<0.13	NA	NA	0.32	NA	NA	NA	NA	NA	NA	NA
1250 Hookston Rd - 1st Floor	1250 Hookston Rd	8/24/2005	Bedroom	7.5	<0.046	<0.071	<0.14	2.4	0.59	<0.14	<0.19	13	1.5	0.82	2.3	0.66	0.75 J
1250 Hookston Rd - Crawl Space	1250 Hookston Rd	8/24/2005	Crawl Space - bedroom closet	6.5	<0.044	<0.068	<0.14	0.18 J	0.56	<0.14	<0.18	16	<0.23	1.1	2.9	0.61	<0.62 UJ
1261 Hookston Rd - 2nd Floor	1261 Hookston Rd	8/23/2005	Bedroom	8.0	<0.047	<0.072	<0.14	1.8	3.6	<0.15	<0.20	24	0.34	3.5	15	3.6	<0.66
1261 Hookston Rd - 1st Floor	1261 Hookston Rd	8/23/2005	Dining Room	8.0	<0.047	0.086	<0.14	2.8	5.3	<0.15	<0.20	36	0.37	4.8	22	5.2	<0.66
1261 Hookston Rd - Crawl Space	1261 Hookston Rd	8/23/2005	Crawl Space - hall closet	6.5	<0.044	<0.068	<0.14	0.82	2.2	<0.14	<0.18	10	0.42	1.5	5.5	1.4	<0.62
1271 Hookston	1271 Hookston Rd	3/3/2004	Master Bedroom	6.0	NA	<0.068	<0.14										

**Table 1**  
**Volatile Organic Compounds Detected in Air Samples ( $\mu\text{g}/\text{m}^3$ )**  
**Hookston Station**  
**Pleasant Hill, California**

Sample ID	Address	Date	Sample Location	Final Vacuum (In. Hg)	Vinyl Chloride	1,1-DCE	c-1,2-DCE	1,1,1-TCA	Benzene	1,2-DCA	TCE	Toluene	PCE	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
			Residential Indoor Air ESL:	0.032	42	7.3	460	0.085	0.12	1.2	63	0.41	420	150	150	9.4	
			Residential Indoor Air CHSSL:	0.0311	-	36.5	2,290	0.084	0.116	1.22	313	0.412	-	730	730	9.35	
1220 Thames	1220 Thames Dr	2/19/2004	Master Bedroom	2.5	NA	<0.59	<0.12	NA	NA	3.1	NA	NA	NA	NA	NA	NA	
1220 Thames (crawl)	1220 Thames Dr	2/19/2004	Crawl space - master bedroom closet	2.5	NA	<0.059	<0.12	NA	NA	1.4	NA	<0.20	NA	NA	NA	NA	
1220 Thames Dr - 2nd Floor	1220 Thames Dr	8/30/2005	Bedroom	0.0	<0.034 UJ	<0.053 UJ	<0.11 UJ	0.82 J	1.3 J	<0.11 UJ	<0.14 UJ	9.9 J	0.37 J	1.2 J	4.8 J	1.3 J	<0.48 UJ
1220 Thames Dr - 2nd Floor Duplicate	1220 Thames Dr	8/30/2005	Bedroom	7.5	<0.046	<0.071	<0.14	1.3	1.3	<0.14	<0.19	11	0.42	1.3	4.9	1.4	<0.64 UJ
1220 Thames Dr - 1st Floor	1220 Thames Dr	8/30/2005	Family Room	7.5	<0.046	<0.071	<0.14	0.84	1.6	<0.14	<0.19	19	0.45	1.8	6.8	2.0	<0.64 UJ
1220 Thames Dr - Crawl Space	1220 Thames Dr	8/30/2005	Crawl Space - master bedroom closet	Vapor Removal System	<0.045	<0.069	<0.14	0.24	0.66	<0.14	<0.19	4.1	0.24	0.52	1.6	0.51	<0.63 UJ
1221 Thames Dr - 2nd Floor	1221 Thames Dr	8/25/2005	Office/Bedroom	7.5	<0.046	<0.071	<0.14	1.5	3.2	0.20	7.1	28	0.76	2.6	10	2.8	<0.64 UJ
1221 Thames Dr - 1st Floor	1221 Thames Dr	8/25/2005	Living Room	2.5**	<0.037	<0.058	<0.12	1.3	2.0	0.19	3.3	30	2.5	2.1	6.6	2	<0.53 UJ
1221 Thames Dr - Crawl Space	1221 Thames Dr	8/25/2005	Crawl Space - master bedroom closet	7.0	<0.045	<0.069	<0.14	0.50	1.1	<0.14	1.8	7.2	0.32	0.59	1.7	0.49	<0.63 UJ
1221 Thames Dr - 1st Floor	1221 Thames Dr	9/7/2005	Master Bedroom	4.5	<0.040	<0.063	<0.12	1.4	1.8	0.15	1.7	17	0.48	1.4	5.1	1.5	<0.57 UJ
1000 Stimel	1000 Stimel Dr	4/12/2004	Master Bedroom	6.0	NA	<0.069	<0.14	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA
1000 Stimel (crawl)	1000 Stimel Dr	4/12/2004	Crawl Space	n/a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1005 Stimel	1005 Stimel Dr	2/17/2004	Master Bedroom	4.5	NA	<0.064	<0.13	NA	NA	0.38	NA	NA	NA	NA	NA	NA	NA
1005 Stimel (crawl)	1005 Stimel Dr	2/17/2004	Crawl Space - master bedroom closet	4.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	9/6/2005	Bedroom	7.5	<0.046	<0.071	<0.14	0.45	1.1	<0.14	1.4	7.1	0.45	0.85	2.2	0.55	<0.64 UJ
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	9/6/2005	Family Room	6.5	<0.044	<0.068	<0.14	0.47	1.1	<0.14	1.4	7.6	0.43	0.89	2.3	0.54	<0.62 UJ
1005 Stimel Dr - Crawl Space	1005 Stimel Dr	9/6/2005	Crawl Space - master bedroom closet	6.5	<0.044	<0.068	<0.14	<0.19	0.52	<0.14	2.7	2.2	<0.23	0.26	0.66	0.19	<0.62 UJ
1006 Stimel	1006 Stimel Dr	2/17/2004	Master Bedroom	5.0	NA	<0.065	<0.13	NA	NA	3.3	NA	NA	NA	NA	NA	NA	NA
1006 Stimel (crawl)	1006 Stimel Dr	2/17/2004	Crawl space - bedroom closet	4.5	NA	<0.064	0.38	NA	NA	5.1	NA	1.3	NA	NA	NA	NA	NA
1006 Stimel Dr - 1st Floor	1006 Stimel Dr	9/14/2005	Master Bedroom	6.5	<0.044	<0.068	<0.14	<0.19	1.5	<0.14	2.2	14	<0.23	1.5	5.8	1.6	<0.62 UJ
1006 Stimel Dr - Crawl Space	1006 Stimel Dr	9/14/2005	Crawl Space - bedroom closet	7.0	<0.045	<0.069	<0.14	<0.19	0.78	<0.14	3.2	4.9	<0.24	0.62	2.1	0.58	<0.63 UJ
1007 Stimel	1007 Stimel Dr	2/26/2004	Master Bedroom	6.5	NA	<0.069	<0.14	NA	NA	2.0	NA	NA	NA	NA	NA	NA	NA
1007 Stimel (crawl)	1007 Stimel Dr	2/26/2004	Crawl space - master bedroom closet	n/a	NA	<0.065	<0.13	NA	NA	0.53	NA	NA	NA	NA	NA	NA	NA
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	9/6/2005	Bedroom	8.0	<0.047	<0.072	<0.14	0.22	0.83	<0.15	0.62	6.1	2.4	0.61	1.6	0.55	<0.66 UJ
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	9/6/2005	Family Room	7.0	<0.045	<0.069	<0.14	0.36	0.95	<0.14	0.99	7.7	5.2	0.80	2.2	0.71	<0.63 UJ
1007 Stimel Dr - Crawl Space	1007 Stimel Dr	9/6/2005	Crawl Space - master bedroom closet	6.5	<0.044	<0.068	<0.14	<0.19	0.49	<0.14	1.4	1.8	0.29	0.21	0.56	0.18	<0.62 UJ
1009 Stimel	1009 Stimel Dr	1/20/2004	Kitchen	5.0	NA	0.067	<0.13	NA	NA	3.5	NA	12	NA	NA	NA	NA	NA
1009 Stimel DUP	1009 Stimel Dr	1/20/2004	Kitchen	5.5	NA	0.075	<0.13	NA	NA	3.8	NA	12	NA	NA	NA	NA	NA
1009 Stimel (crawl)	1009 Stimel Dr	1/20/2004	Crawl Space - hall closet	5.5	NA	0.082	<0.13	NA	NA	6.7	NA	NA	NA	NA	NA	NA	NA
1009 Stimel Dr - 1st Floor	1009 Stimel Dr	9/8/2005	Master Bedroom	7.5	<0.046	<0.071	<0.14	1.3	1.9	0.29	0.36	8.5	0.68	0.66	1.5	0.56	<0.64 UJ
1009 Stimel Dr - 1st Floor Duplicate	1009 Stimel Dr	9/8/2005	Master Bedroom	0.0	<0.034 UJ	<0.053 UJ	<0.11 UJ	1.1 J	1.9 J	0.21 J	0.19 J	7.3 J	0.56 J	0.54 J	1.2 J	0.42 J	<0.48 UJ
1009 Stimel Dr - Crawl Space	1009 Stimel Dr	9/8/2005	Crawl Space - hall closet	Vapor Removal System	<0.046	<0.071	<0.14	<0.20	0.35	<0.14	0.44	1.3	0.87	0.18	0.46	0.16	<0.64 UJ
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/22/2005	Master Bedroom	7.0	<0.045	0.12	<0.14	8.1	0.48	<0.14	<0.19	4.3	<0.24	0.35	0.84	0.29	<0.63 UJ
1015 Stimel Dr - Crawl Space	1015 Stimel Dr	8/22/2005	Crawl space - bedroom closet	5.5	<0.042	<0.065	<0.13	1.3	0.48	<0.13	<0.18	2.4	<0.22	0.25	0.66	0.25	<0.59 UJ
1016 Stimel Dr - 1st Floor	1016 Stimel Dr	9/14/2005	Bedroom	7.5	<0.046	<0.071	<0.14	0.40	0.46	<0.14	<0.19	3.4	<0.24	0.37	0.83	0.27	<0.64 UJ
1016 Stimel Dr - 1st Floor Duplicate	1016 Stimel Dr	9/14/2005	Bedroom	7.5	<0.046	<0.071	<0.14	0.39	0.44	<0.14	<0.19	3.3	<0.24	0.36	0.80	0.26	<0.64 UJ
1016 Stimel Dr - Crawl Space	1016 Stimel Dr	9/14/2005	Crawl Space - Master bedroom closet	6.0	<0.043	<0.067	<0.13	<0.18	0.40	<0.14	0.18	1.4	<0.23	0.19	0.53	0.16	<0.60 UJ
1040 Stimel Dr - 1st Floor	1040 Stimel Dr	9/6/2005	Master Bedroom	6.5	<0.044	<0.068	<0.14	<0.19	0.57	<0.14	<0.18	6.3	0.37	0.32	0.77	0.24	<0.62 UJ
1040 Stimel Dr - 1st Floor Duplicate	1040 Stimel Dr	9/6/2005	Master Bedroom	6.5	<0.044	<0.068	<0.14	<0.19	0.56	<0.14	<0.18	6.2					

**Table 1**  
**Volatile Organic Compounds Detected in Air Samples ( $\mu\text{g}/\text{m}^3$ )**  
**Hookston Station**  
**Pleasant Hill, California**

Sample ID	Address	Date	Sample Location	Final Vacuum (In. Hg)	Vinyl Chloride	1,1-DCE	c-1,2-DCE	1,1,1-TCA	Benzene	1,2-DCA	TCE	Toluene	PCE	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
			Residential Indoor Air ESL:	0.032	42	7.3	460	0.085	0.12	1.2	63	0.41	420	150	150	9.4	
			Residential Indoor Air CHSSL:	0.0311	-	36.5	2,290	0.084	0.116	1.22	313	0.412	-	730	730	9.35	
992 Bermuda Dr - Crawl Space	992 Bermuda Dr	9/22/2005	Crawl Space - Bedroom Closet	7.5	<0.046	<0.071	<0.14	<0.20	0.96	<0.14	<0.19	4.2	0.26	0.56	1.6	0.50	<0.64
1007 Bermuda Dr - 1st Floor	1007 Bermuda Dr	8/23/2005	Living Room	7.5	<0.046	<0.071	<0.14	<0.20	3.1	<0.14	<0.19	17	<0.24	1.5	5.8	1.5	1.1 J
1007 Bermuda Dr - 1st Floor Duplicate	1007 Bermuda Dr	8/23/2005	Living Room	8.5	<0.048	<0.074	<0.15	<0.20	3.1	<0.15	<0.20	17	<0.25	1.6	5.8	1.5	1.1 J
1007 Bermuda Dr - Crawl Space	1007 Bermuda Dr	8/23/2005	Crawl space - master bedroom closet	8.0	<0.047	<0.072	<0.14	<0.20	1.1	<0.15	<0.20	4.6	<0.25	0.56	1.7	0.48	<0.66 UJ
1011 Bermuda	1011 Bermuda Dr	3/16/2004	Master Bedroom	6.5	NA	<0.069	<0.14	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA
1011 Bermuda (crawl)	1011 Bermuda Dr	3/16/2004	Crawl Space - master bedroom closet	6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1011 Bermuda Dr - 1st Floor	1011 Bermuda Dr	9/7/2005	Bedroom	4.0	<0.040	<0.061	<0.12	0.54	0.58	<0.12	<0.17	4.7	<0.21	0.46	1.2	0.38	<0.56 UJ
1011 Bermuda Dr - Crawl Space	1011 Bermuda Dr	9/7/2005	Crawl Space - master bedroom closet	4.0	<0.040	<0.061	<0.12	<0.17	0.46	<0.12	<0.17	1.6	<0.21	0.22	0.62	0.19	<0.56 UJ
1013 Bermuda	1013 Bermuda Dr	3/16/2004	Living Room	7.0	NA	<0.070	<0.14	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA
1013 Bermuda (crawl)	1013 Bermuda Dr	3/16/2004	Crawl Space - master bedroom closet	7.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1013 Bermuda Dr - 2nd Floor	1013 Bermuda Dr	9/7/2005	Bedroom	7.5	<0.046	<0.071	<0.14	<0.20	0.53	<0.14	<0.19	3.2	<0.24	0.52	1.4	0.38	<0.64 UJ
1013 Bermuda Dr - 1st Floor	1013 Bermuda Dr	9/7/2005	Living Room	7.0	<0.045	<0.069	<0.14	<0.19	0.60	<0.14	<0.19	5.6	<0.24	0.40	1.0	0.28	<0.63 UJ
1013 Bermuda Dr - Crawl Space	1013 Bermuda Dr	9/7/2005	Crawl Space - master bedroom closet	7.0	<0.045	<0.069	<0.14	<0.19	0.46	<0.14	0.23	1.8	<0.24	0.38	1.0	0.27	<0.63 UJ
1018 Bermuda Dr - 2nd Floor	1018 Bermuda Dr	8/31/2005	Bedroom	7.5	<0.046	<0.071	<0.14	<0.20	0.72	<0.14	<0.19	2.8	<0.24	0.40	1.1	0.35	<0.64 UJ
1018 Bermuda Dr - 1st Floor	1018 Bermuda Dr	8/31/2005	Family Room	7.0	<0.045	<0.069	<0.14	<0.19	0.69	<0.14	<0.19	3.0	<0.24	0.43	1.2	0.37	<0.63 UJ
1018 Bermuda Dr - Crawl Space	1018 Bermuda Dr	8/31/2005	Crawl Space - master bedroom closet	7.5	<0.046	<0.071	<0.14	<0.20	1.0	<0.14	<0.19	4.8	<0.24	0.66	2.0	0.60	1.7 J
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	8/31/2005	Master Bedroom	8.0	<0.047	<0.072	<0.14	1.2	0.80	<0.15	1.1	11	2.0	0.86	2.1	0.82	<0.66 UJ
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	8/31/2005	Crawl space - office closet	6.0	<0.043	<0.067	<0.13	0.26	0.52	<0.14	1.0	3.6	0.27	0.35	0.96	0.37	<0.60 UJ
1025 Bermuda Dr - 1st Floor	1025 Bermuda Dr	8/30/2005	Master Bedroom	7.0	<0.045	<0.069	<0.14	<0.19	2.1	<0.14	<0.19	20	<0.24	2.2	9.2	2.3	<0.63
1025 Bermuda Dr - Crawl Space	1025 Bermuda Dr	8/30/2005	Crawl Space - bedroom closet	6.0	<0.043	<0.067	<0.13	<0.18	1.0	<0.14	0.61	7.3	<0.23	0.91	3.1	0.93	<0.60
1027 Bermuda Dr - 2nd Floor	1027 Bermuda Dr	9/6/2005	Bedroom	7.5	<0.046	<0.071	<0.14	0.39	1.40	0.16	<0.19	11	0.33	0.89	2.3	0.67	<0.64 UJ
1027 Bermuda Dr - 1st Floor	1027 Bermuda Dr	9/6/2005	Living Room	7.5	<0.046	<0.071	<0.14	0.48	1.3	0.21	<0.19	13	<0.24	0.85	2.1	0.62	<0.64 UJ
1027 Bermuda Dr - Crawl Space	1027 Bermuda Dr	9/6/2005	Crawl Space - master bedroom closet	6.5	<0.044	<0.068	<0.14	<0.19	0.45	<0.14	<0.18	1.6	<0.23	0.23	0.60	0.18	<0.62 UJ
1033 Bermuda Dr - 2nd Floor	1033 Bermuda Dr	9/7/2005	Bedroom	8.0	<0.047	<0.072	<0.14	<0.20	0.54	<0.15	<0.20	9.0	1.1	0.56	1.1	0.32	<0.66 UJ
1033 Bermuda Dr - 1st Floor	1033 Bermuda Dr	9/7/2005	Living Room	7.0	<0.045	<0.069	<0.14	0.20	0.62	<0.14	<0.19	3.3	1.1	0.39	1.0	0.31	<0.63 UJ
1033 Bermuda Dr - Crawl Space	1033 Bermuda Dr	9/7/2005	Crawl Space - master bedroom closet	7.5	<0.046	<0.071	<0.14	<0.20	0.64	<0.14	<0.19	2.9	0.82	0.42	1.1	0.35	<0.64 UJ
1058 Bancroft Rd - 2nd Floor	1058 Bancroft Rd	9/8/2005	Master Bedroom	8.5	<0.048	<0.074	<0.15	0.22	0.45	0.27	<0.20	9.2	<0.25	0.69	2.0	0.51	<0.67 UJ
1058 Bancroft Rd - 2nd Floor Duplicate	1058 Bancroft Rd	9/8/2005	Master Bedroom	7.5	<0.046	<0.071	<0.14	0.22	0.48	0.24	<0.19	9.7	<0.24	0.69	2.0	0.51	<0.64 UJ
1058 Bancroft Rd - 1st Floor	1058 Bancroft Rd	9/8/2005	Living Room	3.0	<0.038	<0.059	<0.12	0.17	0.45	0.21	<0.16	8.9	<0.20	0.71	2.1	0.54	<0.54 UJ
1010 Bancroft Rd - 2nd Floor	1010 Bancroft Rd	8/30/2005	Master Bedroom	18.0	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
1010 Bancroft Rd - 1st Floor	1010 Bancroft Rd	8/30/2005	Living Room	9.0	<0.049	<0.076	<0.15	<0.21	1.4	<0.15	<0.20	25	0.40	2.7	5.2	1.8	<0.69
1270 Trafalgar Ct - 2nd Floor	1270 Trafalgar Ct	8/24/2005	Bedroom (nursery)	8.0	<0.47	<0.072	<0.14	<0.20	0.47	<0.15	<0.20	3.3	1.9	0.39	0.91	0.28	<0.66 UJ
1270 Trafalgar Ct - 1st Floor	1270 Trafalgar Ct	8/24/2005	Living Room/Dining Room	7.0	<0.045	<0.069	<0.14	<0.19	0.60	<0.14	<0.19	7.5	<0.24	0.52	1.3	0.33	<0.63 UJ
1270 Trafalgar Ct - Crawl Space	1270 Trafalgar Ct	8/24/2005	Crawl Space - hall closet	8.0	<0.047	<0.072	<0.14	<0.20	0.46	<0.15	<0.20	3.0	<0.25	0.35	0.89	0.25	<0.66 UJ
1310 Strathmore Ct - 1st Floor	1310 Strathmore Ct	8/25/2005	Master Bedroom	8.0	<0.047	0.16	<0.14	12	0.73	0.34	<0.20	8.2	17	0.46	0.87	0.26	<0.66 UJ
1310 Strathmore Ct - Crawl Space	1310 Strathmore Ct	8/25/2005	Crawl space - bedroom closet	8.0	<0.047	<0.072	<0.14	0.57	0.60	<0.15	0.19 J	2.5	0.90	0.31	0.95	0.31	<0.66 UJ
1310 Strathmore Ct - Crawl Space Duplicate	1310 Strathmore Ct	8/25/2005	Crawl space - bedroom closet	8.0	<0.047	<0.072	<0.14	0.49	0.57	<0.15	&lt						

**Table 1**  
**Volatile Organic Compounds Detected in Air Samples ( $\mu\text{g}/\text{m}^3$ )**  
**Hookston Station**  
**Pleasant Hill, California**

Sample ID	Address	Date	Sample Location	Final Vacuum (In. Hg)	Vinyl Chloride	1,1-DCE	c-1,2-DCE	1,1,1-TCA	Benzene	1,2-DCA	TCE	Toluene	PCE	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
			Residential Indoor Air ESL:	0.032	42	7.3	460	0.085	0.12	1.2	63	0.41	420	150	150	9.4	
			Residential Indoor Air CHSSL:	0.0311	-	36.5	2,290	0.084	0.116	1.22	313	0.412	-	730	730	9.35	
<i>Ambient Air Results:</i>																	
1000 Hampton (ambient air)	1000 Hampton Dr	1/21/2004	Back Yard	6.0	NA	<0.068	<0.14	NA	NA	<0.18	NA	NA	NA	NA	NA	NA	
1220 Thames (ambient air)	1220 Thames Dr	2/19/2004	Back Yard	4.0	NA	<0.62	<0.12	NA	NA	0.21	NA	NA	NA	NA	NA	NA	
1221 Hookston Road (ambient air)	1221 Hookston Rd	9/10/2004	Back Yard	8.5	NA	<0.075	<0.15	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	
Ambient Air - 8/22/05	1015 Stimel Dr	8/22/2005	Back Yard	8.0	<0.047	<0.072	<0.14	<0.20	0.49	<0.15	<0.20	1.8	<0.25	0.23	0.61	0.18	<0.66
Ambient Air - 8/23/05	1261 Hookston Rd	8/23/2005	Back Yard	8.0	<0.047	<0.072	<0.14	<0.20	1.0	<0.15	<0.20	3.6	<0.25	0.49	1.4	0.44	<0.66 UJ
Ambient Air - 8/24/05	1250 Hookston Rd	8/24/2005	Back Yard	4.5	<0.040	<0.063	<0.12	<0.17	0.51	<0.13	<0.17	21	<0.21	1.3	3.4	0.63	<0.57 UJ
Ambient Air - 8/25/05	1320 Strathmore Ct	8/25/2005	Back Yard	8.0	<0.047	<0.072	<0.14	<0.20	0.56	<0.15	<0.20	1.4	<0.25	0.20	0.48	0.16	<0.66 UJ
Ambient Air - 8/29/05	1321 Hampshire Ct	8/29/2005	Back Yard	7.5	<0.046	<0.071	<0.14	<0.20	0.49	<0.14	<0.19	2.4	<0.24	0.38	0.81	0.22	<0.64
Ambient Air - 8/30/05	1010 Bancroft Rd	8/30/2005	Back Yard	8.5	<0.048	<0.074	<0.15	<0.20	0.60	<0.15	<0.20	6.9	<0.25	1.2	3.2	0.65	<0.67 UJ
Ambient Air - 8/31/05	1018 Bermuda Dr	8/31/2005	Back Yard	7.5	<0.046	<0.071	<0.14	<0.20	0.53	<0.14	<0.19	2.1	<0.24	0.29	0.82	0.26	<0.64 UJ
Ambient Air - 9/6/05	1005 Stimel Dr	9/6/2005	Back Yard	14.5	<0.066	<0.10	<0.20	<0.28	0.47	<0.21	<0.28	1.5	<0.35	<0.22	0.50	<0.22	<0.93 UJ
Ambient Air - 9/7/05	1033 Bermuda Dr	9/7/2005	Back yard	8.0	<0.047	<0.072	<0.14	<0.20	0.46	<0.15	<0.20	1.5	<0.25	0.20	0.54	0.18	<0.66 UJ
Ambient Air - 9/8/05	1043 Stimel Dr	9/8/2005	Back yard	7.0	<0.045	<0.069	<0.14	<0.19	0.31	<0.14	<0.19	0.81	<0.24	<0.15	<0.30	<0.15	<0.63 UJ
Ambient Air - 9/14/05	1004 Hampton Dr	9/14/2005	Back Yard	7.0	<0.045	<0.069	<0.14	<0.19	0.44	<0.14	<0.19	1.2	<0.24	0.17	0.49	0.15	<0.63 UJ
Ambient Air - 9/20/05	1351 Edinburgh Ct	9/20/2005	Back Yard	8.5	<0.048	<0.074	<0.15	<0.20	0.85	<0.15	<0.20	3.8	0.34	0.42	1.2	0.43	<0.67 UJ
Ambient Air - 9/22/05	992 Bermuda Dr	9/22/2005	Back Yard	9.0	<0.049	<0.076	<0.15	<0.21	1.0	<0.15	<0.20	3.6	0.30	0.48	1.3	0.40	<0.69
Ambient Air - 10/5/05	1002 Hampton Dr	10/5/2005	Back Yard	6.5	<0.044	<0.068	<0.14	<0.19	0.63	<0.14	<0.18	1.6	<0.23	0.33	1.2	0.43	<0.62

Notes:

All results reported in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

Residential Indoor Air ESLs = Environmental Screening Levels for Residential Indoor Air, from California Regional Water Quality Control Board - San Francisco Bay Region, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1, Interim Final February 2005*.

Residential Indoor Air CHHSLs = California Human Health Screening Levels for Indoor Air, from California Environmental Protection Agency,

*Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, January 2005.*

Highlighted results indicate the detected concentration is greater than the lower of the two screening levels (ESL or CHSSL).

n/a = not available

NA = not analyzed

NA\* = sample not analyzed due to low sample volume collected (high vacuum reading)

UJ = estimated result

J = estimated result